

Notulae to the Italian flora of algae, bryophytes, fungi and lichens: 19

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Abstract

In this contribution, new data concerning algae, bryophytes, fungi and lichens of the Italian flora are presented. It includes new records, confirmations or exclusions for the algal genera *Cladophoropsis*, the bryophyte genera *Bryum*, *Cinclidotus*, *Dicranella*, and *Pulvigera*, the fungal genera *Ascocoryne*, *Calycina*, *Echinoderma*, *Hohenbuehelia*, *Laccaria*, *Lasiosphaeria*, *Leucocoprinus*, *Neodasyscypha*, *Propolis*, *Psathyrella*, and *Sclerococcum*, and the lichen genera *Acarospora*, *Bryoplaca*, *Caloplaca*, *Candelariella*, *Catapyrenium*, *Cladonia*, *Lecanora*, *Lepra*, *Monerolechia*, *Mycobilimbia*, *Pertusaria*, *Pycnora*, *Spilonema*, *Thelopsis*, and *Xylopsora*.

Keywords

Ascomycota, Basidiomycota, Bryidae, Ulvophyceae

How to contribute

The text of the records should be submitted electronically to: Cecilia Totti (c.totti@univpm.it) for algae, Annalena Cogoni (cogoni@unica.it) for bryophytes, Alfredo Vizzini (alfredo.vizzini@unito.it) for fungi, Sonia Ravera (sonia.ravera@unipa.it) for lichens. Each text should be within 1,000 characters (spaces included).

Floristic records

ALGAE

Cladophoropsis membranacea (Bang ex C.Agardh) Børgesen (Boodleaceae)

+ **LAZ**: Riserva Naturale Regionale Tor Caldara, Anzio (Roma), (WGS84: 33T 298714.4595621), 0 m, on rocks in the intertidal zone, 19 June 2024, *S. De Mei, D. Iamonico* (FI, RO). – Species new for the flora of Lazio.

This species has been reported in Italy in Friuli-Venezia Giulia, Liguria, Campania, Puglia, and Sicilia (Giaccone 1969; Edwards et al. 1975; Cinelli et al. 1976; Furnari et al. 1999; Gallardo et al. 1993; GBIF.org 2025a). Abdelahad et al. (2004) did not record *C. membranacea* in Lazio. Hence, this is also the first record for central Italy.

D. Iamonico, S. De Mei

BRYOPHYTES

Bryum klinggraeffii Schimp. (Bryaceae)

+ **LOM**: Moraines of Lake Garda, Ghisiola, M. Tondo, Castiglione delle Stiviere (Mantova) (UTM WGS84: 32T 617898.5029202), wheat field, 130 m, 8 May 2016, *S. Scortegagna* (MNAV). – Species new for the flora of Lombardia.

Bryum klinggraeffii is a segetal bryophyte easily recognizable by its characteristic raspberry-shaped rhizoidal tubers, small in size but very numerous, with protruding cells (Porley 2008). It is a species already indicated for all the other Po Valley and Alpine regions (Aleffi et al. 2023), which does not show particular edaphic preferences (Andriušaitytė and Jukonienė 2010) and is, in the nearby Veneto, among the most common species of the particular and little-known habitat of cultivated fields (Scortegagna 2016).

S. Scortegagna

Cinclidotus aquaticus (Hedw.) Bruch & Schimp. (Pottiaceae)

+ **LIG**: Torrente Argentina, Molini di Triora (Imperia) (UTM WGS84: 32T 401153.4870945), 460 m, 6 September 2022, *C.D. Spada* (CAME); Torrente Bisagno, Genova (UTM WGS84: 32T 502642.4921899), 123 m, 28 May 2021, *C.D. Spada* (CAME); Torrente Pennavaire, Nasino (Savona) (UTM WGS84: 32T 421307.4884832), 360 m, 26 May 2016, *C.D. Spada* (CAME); Torrente Malvaro, Orero (Genova) (UTM WGS84: 32T 520376.4918662) 125 m, 30 May 2017, *L. Olivieri* (CAME); Fiume Magra, Sarzana (La Spezia) (UTM WGS84: 32T 575056.4884259), 1 m, 28 May 2015, *C.D. Spada* (CAME); Fiume Vara, Brugnato (La Spezia) (UTM

WGS84: 32T 557216.4897811), 99 m, 16 September 2014, *C.D. Spada* (CAME); Torrente Barbaira, Dolceacqua (Imperia) (UTM WGS84: 32T 388934.4857676), 158 m, 18 May 2017, *L. Olivieri* (CAME); Torrente Bevera, Ventimiglia (Imperia) (UTM WGS84: 32T 385607.4853163), 66 m, 17 May 2017, *C.D. Spada* (CAME); Fiume Roia, Olivetta San Michele (UTM WGS84: 32T 382457.4860362), 148 m, 7 June 2022, *C.D. Spada* (CAME); Fiume Roia, Ventimiglia (UTM WGS84: 32T 387649.4849818), 84 m, 22 September 2014, 11 June 2015, *C.D. Spada* (CAME); Torrente Scrivia, Isola del Cantone (Genova) (UTM WGS84: 32T 494319.4945362), 247 m, 13 May 2022, *L. Olivieri* (CAME). – Species confirmed for the flora of Liguria.

Cinclidotus aquaticus was found during macrophytes sampling on submerged stable and coarse substrates, boulders and rocks, in fast-flowing or very fast-flowing rivers, often together with *C. riparius* (Host ex Brid.) Arn., *C. fontinaloides* (Hedw.) P.Beauv., and *Rhynchostegium ripariooides* (Hedw.) Cardot. In Italy, the moss is present in almost all administrative regions except Valle d'Aosta, Molise, Puglia, and Basilicata. In particular, the last reports in Liguria date from before 1968 (Aleffi et al. 2023).

C.D. Spada, L. Olivieri, M. Aleffi

***Cinclidotus fontinaloides* (Hedw.) P.Beauv. (Pottiaceae)**

+ **LIG:** Torrente Argentina, Molini di Triora (Imperia) (UTM WGS84: 32T 404227.4869742), 374 m, 24 May 2016, *C.D. Spada* (CAME); Torrente Bisagno, Genova (UTM WGS84: 32T 502642.4921899), 123 m, 28 May 2021, *C.D. Spada* (CAME); Torrente Arroscia, Perinetti (Imperia) (UTM WGS84: 32T 415497.4876792), 189 m, 5 June 2019, *L. Olivieri* (CAME); Torrente Pennevaire, Nasino (Savona) (UTM WGS84: 32T 421307.4884832) 361 m, 8 September 2016, *C.D. Spada* (CAME); Torrente Lavagna, Uscio (Genova) (UTM WGS84: 32T 512856.4920352), 172 m, 13 June 2019, *C.D. Spada* (CAME); Torrente Malvaro, Orero (Genova) (UTM WGS84: 32T 520376.4918662), 125 m, 30 May 2017, *C.D. Spada* (CAME); Torrente Penna, Borzonasca (Genova) (UTM WGS84: 32T 530983. 4918830), 172 m, 7 June 2018, *C.D. Spada* (CAME); Torrente Sturla, Borzonasca (Genova) (UTM WGS84: 32T 530266.4919222), 195 m, 7 June 2018, *C.D. Spada* (CAME); Torrente Sturla, Mezzanego (Genova) (UTM WGS84: 32T 529611.4919816), 63 m, 1 June 2016, *C.D. Spada* (CAME); Torrente Aveto, Rezzoaglio (Genova) (UTM WGS84: 32T 532551.4933092), 654 m, 3 giugno 2020, *L. Olivieri* (CAME); Fiume Magra, Sarzana (La Spezia) (UTM WGS84: 32T 575056.4884261), 1 m, 4 June 2014, *C.D. Spada* (CAME); Fiume Vara, Varese Ligure (La Spezia) (UTM WGS84: 32T 549811.4906759), 292 m, 26 May 2015, *L. Olivieri* (CAME); Fiume Vara, Brugnato (La Spezia) (UTM WGS84: 32T 4 557216.4897811), 99 m, 14 September 2016, *C.D. Spada* (CAME); Torrente Petronio, Castiglione Chiavarese (Genova) (UTM WGS84: 32T 538866.4902522), 83 m, 10 June 2019, *L. Olivieri* (CAME); Torrente Scrivia, Montoggio (Genova) (UTM WGS84: 32T 501676.4929532), 415 m, 25 May 2021, *C.D. Spada* (CAME); Torrente Pentemina, Montoggio (Genova) (UTM WGS84: 32T 506495.4930578), 500 m, 3 June 2015, *C.D. Spada* (CAME); Fiume

Trebbia, Gorreto (Genova) (UTM WGS84: 32T 523463.4939145), 530 m, 31 May 2018, C.D. Spada (CAME). – Species confirmed for the flora of Liguria.

Cinclidotus fontinaloides was identified on stable and coarse substrates, submerged or more frequently periodically emerged in the flood-zone of rivers, with medium/fast-flowing waters, often together with *C. riparius* (Host ex Brid.) Arn., *C. aquaticus* (Hedw.) Bruch & Schimp., and *Rhynchostegium riparioides* (Hedw.) Cardot. The moss is particularly widespread in almost all regions of northern and central Italy. However, in Liguria the last reports refer to samples from before 1968 (Aleffi et al. 2023).

C.D. Spada, L. Olivieri, M. Aleffi

***Dicranella staphylina* H.Whitehouse (Dicranellaceae)**

+ LOM: Moraines of Lake Garda, Ghisiola, M. Tondo, Castiglione delle Stiviere (Mantova) (UTM WGS84: 32T 617898.5029202), wheat field, 130 m, 8 May 2016, S. Scortegagna (MNAV: SS11653); Bosco Fontana, Marmirolo (Mantova) (UTM WGS84: 32T 637682.5006717), path, 25 m, 15 January 2020, S. Scortegagna (MNAV: SS03633). – Species new for the flora of Lombardia.

Described less than a century ago (Whitehouse 1969), *D. staphylina* was probably ignored for a long time as demonstrated by recent findings, e.g. in Russia (Rozhina et al. 2010) and Turkey (Ursavaş et al. 2020). Although in Italy it is reported only for some northern regions and for Umbria (Aleffi et al. 2023), it is actually a common bryophyte in disturbed soils, e.g. ploughed fields (Andriušaitytė and Jukonienė 2010), flowerbeds and cemeteries (Scortegagna 2024). It requires strong anthropogenic disturbance because the propagules must be exposed to light to germinate (Jukonienė et al. 2012).

S. Scortegagna

***Pulvigera lyelii* (Hook. & Taylor) Plášek, Sawicki & Ochyra (Orthotrichaceae)**

+ LAZ: Sabina Universitas, Via Angelo Maria Ricci, Rieti (UTM WGS 84: 33T 324427.4697361), on *Robinia pseudacacia* L. tree in the garden, 390 m, 22 March 2023, L. Cancellieri (UTV: B_000009); Subiaco (Roma) (UTM WGS 84: 33T 342039.4643381), on *Tilia* bark, 480 m, 24 July 2019, S. Scortegagna (UTV: B_000009); Croce di San Martino, Caprarola (Viterbo) (UTM WGS 84: 33T 264009.4693046), on *Quercus cerris* L. trunk, 750 m, 5 March 2023, L. Cancellieri (UTV: B_000009); Cura di Vetralla, Vetralla (Viterbo), (UTM WGS84: 260449.4688919), on *Q. cerris* trunk, 402 m, 19 March 2024, L. Cancellieri (RO: RO-HG-MUS_8075); Via dei Cappuccini, Lago di Albano, Albano Laziale (Roma) (UTM WGS 84: 33T 306569.4622584), on *Q. ilex* L. trunk, 509 m, 15 March 2024, L. Cancellieri (RO: RO-HG-MUS_8075); Via Miralago, Lago di Albano, Albano Laziale (Roma) (UTM WGS 84: 33T 306604.4622584), on *Q. cerris* bark, 507 m, 15 March 2024, L. Cancellieri (RO: RO-HG-MUS_8075); Museo Orto Botanico di Roma, Japanese Garden, Gianicolo, Roma (UTM WGS 84: 33T 289558.4640687), on *Prunus* sp. trunk, 66 m, 18 January 2025, L. Cancellieri (RO: RO-HG-MUS_8075). – Species confirmed for the flora of Lazio.

Pulvigera lyelii was first reported in Lazio by Jäggli (1933) at the Botanical Garden of Rome and subsequently, still in the Roman area, by Bizot and Fraux (1962) at Lake Albano. Both localities are here confirmed. New localities are added for the provinces of Rome, Rieti, and Viterbo. The species has been found on trunks of different species (*Quercus cerris* L., *Q. ilex* L., *Tilia* sp., *Prunus* sp., *Robinia pseudoacacia* L.), but seems particularly linked to sites where microclimatic conditions are characterized by the constant presence of atmospheric humidity.

L. Cancellieri, S. Scortegagna

FUNGI

Ascocoryne turficola (Boud.) Korf (Gelatinodiscaceae)

+ **VDA:** W Alps, Alpi Graie, bacino del Ruitor, Comba Sozin (UTM WGS84: 32T 340891.5060193), light natural subalpine forest, mainly Larch, *Pinus cembra* L. and *P. mugo* Turra subsp. *uncinata* (Ramond ex DC) Domin with Birch, Rowan and Green alder, in *Sphagnum* mats, with the rare *Carex pauciflora* L. and more common species of wetlands, 2055 m, 18 October 2021, G. Buffa, M. E. Bissoli (TO AV6422021). – Species new to Val d'Aosta.

Ascocoryne turficola is one of the rarest fungi in Europe (Watling et al. 2001; Stasińska and Sotek 2004; Van Vooren 2012) with high conservation value (Stasińska and Sotek 2004; Filippova and Bulyonkova 2013; Filippova et al. 2013; Gyosheva et al. 2015). In most European countries where it has been recorded, it is listed in that country's Red List. Its habitat is associated with peatland ecosystems where it grows in a saprotrophic way on remains of *Sphagnum* species and other plants (*Carex*) in strongly hydrated conditions (Stasińska and Sotek 2004; Bunyard et al. 2008; Van Vooren 2012; Vašutová et al. 2013). Recently, it has been also reported from North America (Canada) (Bunyard et al. 2008) and West Siberia (Filippova and Bulyonkova 2013; Filippova et al. 2013). The species is characterized by ascomata as modified vinaceous to olivaceous apothecia, waxy and turbinate with a convex disc when young, then strongly gelatinous, cup-shaped or gibbose-cerebriform and depressed centrally, and with a long tapering stipe-like base (Bunyard et al. 2008; Van Vooren 2012; Filippova et al. 2013; Gyosheva et al. 2015). The collection presented here is the second record of *A. turficola* from Italy since Fiutem (1995) reported it from Trentino (Filippova and Bulyonkova 2013; Filippova et al. 2013).

S. Sampò, G. Buffa, A. Vizzini

Calycina claroflava (Grev.) Kuntze (Pezizellaceae)

+ **CAL:** Bosco di Mavigliano, Montalto Uffugo (Cosenza) (UTM WGS84: 33S 604319.4360787), on dead twigs of *Quercus* sp., 227 m, 3 November 2024, D. Puntillo (CLU No. F525). – Species new to Calabria.

This species is similar to *Bisporella citrina* (Batsch) Korf & S.E.Carp. but shows smaller spores and grows on old stromata of pyrenomycetes such as *Diatrype* Fr., *Diatrypella* (Ces. & De Not.) De Not., and *Hypoxylon* Bull.

D. Puntillo

***Echinoderma jacobi* (Vellinga & Knudsen) Gminder (Agaricaceae)**

+ CAL: Botanical Garden, University of Calabria, Rende (Cosenza) (UTM WGS84: 33S 605851.4357357), on the ground, in the litter of a riparian wood patch, close to a natural spring, at the base of natural *Populus canescens* and planted *Taxodium distichum* trees as prevailing species, 200 m, 5 November 2024, A.B. De Giuseppe, G. Sicoli, N.G. Passalacqua (CLU F339). – Species new to Calabria.

A couple of lepiotoid basidiomes were detected on the ground among the litter of a humid forest place under the crown of *Populus canescens* (Aiton) Sm. and *Taxodium distichum* (L.) Rich. trees inside the Botanical Garden of the University of Calabria. Pilei were broadly convex, 1.5–2.0 cm wide, the stipes cylindrical, both uniformly covered by persistent and brownish scales on a pale background, with an apparent ring zone in the upper part. The gills were free, crowded, and whitish. Spores were hyaline, smooth, ellipsoid, and 4–5 × 2.5–3 µm sized. Cheilocystidia were not seen. In Italy, *E. jacobi* has been mainly reported in the northern regions (Onofri et al. 2013).

N.G. Passalacqua, A.B. De Giuseppe, G. Sicoli

***Hohenbuehelia atrocoerulea* (Fr.) Singer (Pleurotaceae)**

+ CAL: Botanical Garden, University of Calabria, Rende (Cosenza) (UTM WGS84: 33S 605869.4357186), on the edge of a dead timber from a deciduous tree species used for a bench which was set under the crown of a downy oak tree (*Quercus pubescens* Willd.), 210 m, 18 October 2023, N.G. Passalacqua, A.B. De Giuseppe, G. Sicoli (CLU F336). – Species new to Calabria.

A cluster of imbricate, sessile, domed and kidney-shaped basidiomes was observed attached to a horizontal timber constituting the seatback of a bench in a didactic open space inside the Botanical Garden at the University of Calabria. This fungus was identified as *H. atrocoerulea* since from the dimidiate, 2- to 4-cm wide and 1- to 3-cm deep basidiomata, the upper surface being light brownish, almost smooth, just slightly velvety, especially at the base, the lower side covered by whitish-ochraceous gills, crowded not spaced as in the closely related species *H. grisea* (Peck) Singer. Spores were ellipsoid, 7–9 × 4–5 µm in size, cheilocystidia numerous, fusoid, and apically heavily encrusted with evident metuloids (Käärik 1992; Courtecuisse and Duhem 1995; Consiglio and Setti 2018). This specie was so far reported in several administrative regions from northern and central Italy (Onofri et al. 2013).

N.G. Passalacqua, A.B. De Giuseppe, G. Sicoli

***Laccaria populina* Dovana (Hydnangiaceae)**

+ **FVG**: Bosco di Marzinis, Fiume Veneto frazione di Pescincanna (Pordenone), (UTM WGS84: 33T 328403.5089442), under white hornbeam (*Carpinus betulus* L.) and poplars (*Populus nigra* L.) 27 m, 22 Oct 2020, *M. Piccinin* (GDOR5562). – Species new to Friuli Venezia Giulia.

Morphologically, our collection fits with the description of the *L. populina* holotype reported in Boonmee et al. (2021). The newly nrITS sequence (partial 5.8s and ITS2 regions) of the GDOR5562 voucher (GB: PV162854) shares 350/350 (100%) nucleotides compared with the holotype of *L. populina* sequence (GB: MN871894) confirming the morphological identification. To date, *L. populina* has been reported in Italy only from Piemonte, and this represents the first record in Friuli Venezia Giulia.

M. Piccinin, F. Dovana

***Lasiosphaeria ovina* (Pers.) Ces. & De Not. (Lasiosphaeriaceae)**

+ **CAL**: Orto Botanico Università della Calabria, Rende (Cosenza) (UTM WGS 84: 33S 605850.4357262), on lignum, 201 m, 29 October 2024, *D. Puntillo* (CLU F515). – Species new to Calabria.

Scattered to gregarious small species (max 6 mm) characterized by the furfuraceous-scurfy hyphal tissue that surrounds the perithecia provided with apical black ostioles.

D. Puntillo

***Leucocoprinus cygneus* (J.E.Lange) Bon (Agaricaceae)**

+ **CAL**: Botanical Garden, University of Calabria, Rende (Cosenza) (UTM WGS84: 33S 606001.4357359), on the ground, along a path at the edge of a riparian wood strip, among the litter of *Populus canescens* trees as prevailing species, 200 m, 30 October 2024, *G. Scolli, D. Puntillo, N.G. Passalacqua* (CLUF338). – Species new to Calabria.

A couple of pure white basidiomes were detected on the ground at the edge of a path delimiting a riparian wood inside the Botanical Garden of the University of Calabria. Pilei were hemispheric, 1.0–1.5 cm wide, glabrous but granulose at the centre. The gills were free, narrow, and pure white as well. The stipes were concolor, cylindrical, bulbous at the base, supporting an entire distinct ring. Spores were hyaline, ellipsoid, and 6–7 × 3.5–4 µm in size. Cheilocystidia were lageniform. Previously included in the genus *Sericeomyces* Heinem., this lepiotoid fungus is currently identified as *L. cygneus*, a species colonising forest litter in humid places (Moser 1986; Døssing 1992). In Italy, it has so far been reported only from Lazio (Onofri et al. 2013).

G. Scolli, D. Puntillo, N.G. Passalacqua

***Neodasyscypha cerina* (Pers.) Spooner (Lachnaceae)**

+ **CAL:** Bosco di Mavigliano, Montalto Uffugo (Cosenza) (UTM WGS 84: 33S 604223.4360817), on lignum, 215 m, 8 November 2024, D. Puntillo (CLU F518). – Species new to Calabria.

This saprophytic discomycete is recognizable for their small (max. 5 mm), short stipitate and gregarious apothecia provided with buff to reddish or dark brown colours, with more or less thick-walled hairs. The specimen was collected on Oak twig in contact with the ground.

D. Puntillo

***Propolis farinosa* (Pers.) Fr. (Marthamycetaceae)**

+ **CAL:** Bosco di Mavigliano, Montalto Uffugo (Cosenza) (UTM WGS84: 33S 604891.4360949), on lignum, 188 m, 25 November 2024, D. Puntillo (CLU F521). – Species new to Calabria.

Propolis farinosa is a saprophytic, inconspicuous species recognizable by its subfusiform, gelatinous ascoma, semi-submerged in the substrate with the hymenophore exposed to the rupture of the wood “epidermis” and ascospores unicellular, biseriate, biguttulate with accessory guttulae. The specimen was collected on decorticated wood in a pile of poplar twigs near woodland edge.

D. Puntillo

***Psathyrella tephropylla* (Romagn.) Bon (Psathyrellaceae)**

+ **CAL:** Botanical Garden, University of Calabria, Rende (Cosenza) (UTM WGS84: 33S 606040.4357362), on grass, 195 m, 2 November 2020, A.B. De Giuseppe, N.G. Passalacqua, G. Sicoli (CLU F340).

– Species new to Calabria.

Psathyelloid basidiomata were observed sprouting among graminaceous herbs along a path in the vicinity of the Botanical Garden at the University of Calabria. The pilei were conical to paraboloid, pale beige and striate at the margin, and 2–3 cm-diameter wide. The stipe was slender, cylindrical, and pure white. Gills were quite close and ventricose, initially grey than black. Spores were frontally ellipsoid, adaxially flattened, dark brown with a distinct, sometimes eccentric, germ pore, and measuring 9–11 × 5.0–6.5 µm. Pleurocystidia were clearly utriform, sometimes subcapitate, cheilocystidia versiform (subfusoid, sublageniform and subutriform). This species was so far reported from northern and central Italy (Onofri et al. 2013).

A.B. De Giuseppe, N.G. Passalacqua, G. Sicoli

***Sclerococcum athallinum* (Müll.Arg.) Ertz & Diederich (Dactylosporaceae)**

+ VEN: S Alps, Carnic Alps, saddle between Col Marende and Mt. Tiarfin, S above Casera Razzo, ca. 9 km W of Sauris di Sopra (Belluno) (UTM WGS84: 33T 315960.5149154), on NW-exposed low outcrops, schists of the Werfen formation, on thallus of *Baeomyces rufus* (Huds.) Rebent., 2000 m, 27 July 1993, J. Hafellner (GZU – JH32746) (Label text in German). – Species new to Veneto.

The lichenicolous discomycete is only known in its teleomorphic state. It is specialized on *Baeomyces*, of which *B. rufus* (Huds.) Rebent. is the most common host. The minute fungus is known from both hemispheres, but the majority of records come from Europe. On Italian territory the species is so far recorded from Friuli Venezia Giulia (Tretiach and Carvalho 1994), Liguria (Brunialti et al. 1999), Toscana (Benesperi et al. 2007), Marche (Brackel 2015), and Calabria (Puntillo 1993, 1996; Brackel and Puntillo 2016). Whether *Abrothallus placophyllus* Anzi (Anzi 1868: 177), based on a type originating from Lombardia, constitutes a heterotypic synonym as argued by Brackel (2016), would need a reinvestigation of authentic material. Doubts are justified because some of the characters mentioned in the protologue do not fit to *S. athallinum* and recall rather an *Arthonia*.

J. Hafellner

***Sclerococcum saxatile* (Schaer.) Ertz & Diederich (Dactylosporaceae)**

+ VDA: W Alps, Alpi Pennine, Colle del Gran San Bernardo, just SW below the pass (Aosta), (UTM WGS84: 32T 357153.5081436), vertical rock faces on S-facing, steep slope, on thallus of *Pertusaria flavicans*, 2500 m, 1 August 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87141). – Species new to Val d’Aosta.

+ PIE: W Alps, Alpi Cozie, ridge S of Valle di Susa, N slopes of Mt. Genevris, ENE of the mountain top (Torino) (UTM WGS84: 32T 335133.4988877), rocky slope with outcrops and boulders of slightly calcareous micaschist, on low rock outcrops in treeline ecotone, on thallus of *Pertusaria flavicans*, 2500 m, 27 July 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87240); Alpi Cozie, mountain ridge NW above Crissolo, N above Pian Melze (Cuneo) (UTM WGS84: 32T 350912.4951810), outcrops of calcareous schists on S-facing steep slope, on thallus of *Pertusaria flavicans*, 1880 m, 25 July 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87796); Alpi Liguri, uppermost N ridge of Mt. Saccarello, SW above Monesi, on the E side of the crest, NW of Statua del Redentore (Cuneo) (UTM WGS84: 32T 396995 4879618), outcrops of calcareous schists in alpine meadows, on thallus of *Pertusaria flavicans*, 2150 m, 18 July 2000, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87458); Alpi Liguri, just NW above Carnino, (Cuneo) (UTM WGS84: 32T 398344 4889195), outcrops of slightly calcareous blue-green schists close to a creek, on sunny, inclined rock faces, on thallus of *Pertusaria flavicans*, 1400 m, 19 July 2000, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87552). – Species confirmed for Piemonte.

Sclerococcum saxatile is only known in the teleomorphic state. It is widespread in the Holarctic region. In Italy, the only regions from which the species is known from several localities are Trentino-Alto Adige (Arnold 1896; Lettau 1958; Hafellner 1979) and Lombardia (Anzi 1860, 1866; Hafellner 1979). Single records we traced for Friuli Venezia Giulia (Tretiach and Hafellner 2000), Veneto (Nascimbene et al. 2021), and Liguria (Hafellner 1979), since an earlier record from Liguria (Sbarbaro 1932: 245) refers to a different species as indicated by the given host, *Circinaria calcarea* (L.) A.Nordin, Savić & Tibell. Only historical records exist so far from Piemonte, all from the Valsesia area in the Vercelli province (Baglietto and Carestia 1867, 1880). Hence the species is confirmed here for the region and reported as new to the provinces of Torino and Cuneo. On Italian territory outside the Alps the species is also known from Toscana (Boom and Aptroot 1990; Tretiach et al. 2008), Campania (Jatta 1892), and Calabria (Brackel and Puntillo 2016).

J. Hafellner, P. L. Nimis, M. Tretiach

***Sclerococcum sphaerale* (Ach.) Fr. (Dactylosporaceae)**

+ **VDA:** W Alps, Alpi Pennine, Colle del Gran San Bernardo, just SW below the pass (Aosta) (UTM WGS84: 32T 357153.5081436), outcrops of siliceous rocks in alpine grassland on steep, S-facing slope, inclined rock faces, on thallus of *Lepra corallina*, 2500 m, 1 August 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87106). – Species new to Val d'Aosta.

+ **PIE:** W Alps, Alpi Cozie, ridge S of Valle di Susa, SW above Colle dell'Assietta (Torino) (UTM WGS84: 32T 338830.4992240), outcrops of slightly calcareous schists on the ridge, on N-facing rocks, on thallus of *Lepra corallina*, 2550 m, 27 July 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87806). – Species new to Piemonte.

+ **LOM:** S Alps, S Rhaetian Alps, Presanella-group, Passo del Tonale, S above the pass towards Passo del Paradiso (Brescia) (UTM WGS84: 32T 621719.5123345), granitic boulder field surrounded by shrubs of *Alnus alnobetula*, on gentle N-facing slope, vertical rock faces, on thallus of *Lepra corallina*, 1950 m, 24 July 2006, leg. J. Hafellner, L. Muggia, det. J. Hafellner (GZU – JH88193). – Species new to Lombardia.

+ **TOS:** N Apennines, surroundings of Abetone, Val di Luce, Alpe Tre Potenze, along lift route Sciovia "La Fariola" (Pistoia) (UTM WGS84: 32T 631036.4886844), N-facing slope, on siliceous boulders, on thallus of *Lepra corallina*, 1730 m, 27 October 1978, J. Hafellner (GZU – JH3891). – Species new to Toscana.

Sclerococcum sphaerale is a fungus only known in its anamorphic state (Hawksworth 1975; Diederich et al. 2024) with *Lepra corallina* (L.) Hafellner constituting its most common host. *S. sphaerale* is widely distributed in the Holarctic region. In Italy, it is so far recorded from Friuli Venezia Giulia (Tretiach and Hafellner 2000), Trentino-Alto Adige (Kernstock 1890, as *Acolium corallinum*, 1896, Hawksworth 1979, Hafellner and Sancho 1990), Emilia-Romagna (Tretiach et al. 2008), and Sardegna (Nimis and

Poelt 1987). Some additional records from Italy have been traced by Brackel (2016). However, the report from a locality near Gröden (Gardena) (Lettau 1958, as *Coniothecium s.*) refers to *Nigropuncta rugulosa* D.Hawksw., as indicated by the given host and other mentioned characters (for that species compare Ravera et al. 2024).

J. Hafellner, P. L. Nimis, M. Tretiach

LICHENS

Acarospora similis H.Magn. (Acarosporaceae)

+ **TOS:** Giardino di via Belgio (Firenze), on the woody bench at the right end of the garden (UTM WGS84: 32T 684913.4847509), 56 m, 25 December 2024, *L. Guazzini* (FI). – Species new to Toscana.

Acarospora similis is a lignicolous crustose species characterized by an episubstratic, areolate-subsquamulose, chestnut brown thallus. Probably overlooked and widespread in Italy on weathered wood, the species is distributed from the dry submediterranean to the subalpine belt (Nimis 2025).

L. Guazzini, E. Bianchi, R. Benesperi

Bryoplaca sinapisperma (Lam.) Söchting, Frödén & Arup (Teloschistaceae)

+ **VDA:** Western Alps, Alpi Graie, M. Bianco (Mont Blanc) group, Val Veny W of Courmayeur, ridge W above Rifugio Elisabetta Soldini (Aosta) (UTM WGS84: 32T 331630.5070248), cliffs and boulders of Jurassic limestone and alpine vegetation on N–NE-facing slope, on plant remnants, 2250 m, 30 July 2001, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87345). – Species new to Val d’Aosta.

+ **PIE:** Western Alps, Alpi Cozie, ridge S of Valle di Susa, N slopes of Mt. Genéris, ENE of the mountain top (Torino) (UTM WGS84: 32T 335133.4988877), rocky slope with outcrops of slightly calcareous micaschist, treeline ecotone, on plant remnants, 2500 m, 27 July 2001, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH 87243); Alpi Cozie, ridge NW above Crissolo N above Pian di Melzè (Cuneo), (UTM WGS84: 32T 350912.4951810), S-exposed slopes of calcareous schist, 1800 m, 25 July 2001, *P.L. Nimis, M. Tretiach, J. Hafellner* (TSB 35296). – Species confirmed for Piemonte.

+ **LIG:** Western Alps, Alpi Liguri, mountains S above Monesi, on the ridge W above Colle del Garezzo (Imperia) (UTM WGS84: 32T 401686.4877849), small outcrops of calcareous schist in subalpine pasture, on bryophytes, 1850 m, 21 July 2000, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87265). – Species new to Liguria.

The ecology of this species is similar to that of *Peltigera lepidophora* (Vain.) Bitter, and both species may grow side by side on plant remnants or thin organic soil layers overlaying low limestone outcrops and boulders, as it was the case in the sample from Liguria (see also Ravera et al. 2024). *Bryoplaca sinapisperma* shows a Holarctic distribution and is fairly common throughout the Alps (Nimis et al.

2018), where it is most common on limestone mountains from the treeline to the lower alpine belt. This species was erroneously given as occurring in Valle d'Aosta by Nimis (2016). The so far only published record from Piemonte dates back to the 19th century (Baglietto and Carestia 1880, as *Callopisma leucoraeum*, cited also by Isocrono et al. 2004). In the northern and central Apennines the species occurs only on the highest mountains (Nimis 2016, 2024).

J. Hafellner, P. L. Nimis, M. Tretiach

***Bryoplaca tetraspora* (Nyl.) Søchting, Frödén & Arup (Teloschistaceae)**

+ VEN: S Alps, Carnic Alps, saddle between Col Marende and Mt. Tiarfin, S above Casera Razzo, c. 9 km W of Sauris di Sopra (Belluno) (UTM WGS84: 33T 315960.5149154), on NW-facing low outcrops of Werfen schists overgrowing bryophytes, 2000 m, 27 July 1993, J. Hafellner (GZU – JH32757) (label in German). – Species new to Veneto.

+ VDA: W Alps, Alpi Graie, M. Bianco (Mont Blanc) group, Val Veny W of Courmayeur, ridge W above Rifugio Elisabetta Soldini (Aosta), (UTM WGS84: 32T 331630.5070248), cliffs and boulders of Jurassic limestone and alpine vegetation on N–NE-facing slope, on plant remnants and bryophytes, 2250 m, 30 July 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87225). – Species new to Val d'Aosta.

+ TAA: S Alps, Dolomites, Porta Vescovo S of Arabba, cliffs E above the cable car station (next to Rifugio Luigi Gorza) (Trento) (UTM WGS84: 32T 720282.5150610), volcanic cliffs along the crest, on plant remnants in crevices, 2400–2500 m, 16 April 1979, J. Hafellner (GZU – JH4562) (label in German). – Species confirmed for Trentino Alto Adige.

+ PIE: W Alps, Alpi Cozie, above Col dell'Agnello (Cuneo) (UTM WGS84: 32T 340611. 4949941), on soil over calciferous substrata, 2900 m, July 2000, P.L. Nimis, M. Tretiach, J. Hafellner (TSB 33121) ; W Alps, Alpi Cozie, W ridge of Mt. Nebin about 1 km E of Colle di Sampeyre (Cuneo) (UTM WGS84: 32T 352157.4934030), outcrops of calcareous schists on N-facing slope, on plant remnants, 2380 m, 26 July 2000, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH75630); ibidem, P.L. Nimis, M. Tretiach (TSB – 32986). – Species new to Piemonte.

This species colonizes mostly plant remnants and bryophytes over intermediate rocks. Its overall distribution is arctic-alpine, bipolar. Its distribution in Italy is poorly known (Nimis 2025) and probably restricted to the Alps where *B. tetraspora* appears to be much rarer than *B. sinapisperma* (Nimis et al. 2018). There are only historical records so far from Trentino-Alto Adige. The first one in Italy is apparently that by Arnold (1896: 119, as *Blastenia t.*) from Ferrara-Alpe along the trail to Grödener Jöchl (= Passo Gardena) in the Dolomites. An earlier one difficult to localize (Arnold 1874: 257, as *Blastenia oligospora*), also mentioned by Nimis (1993), refers to a specimen from a site north of the present Italian border (in Austria), but some decades later Cengia-Sambo (1931: 51, as *Blastenia t.*) recorded the species from Passo di Falzarego.

J. Hafellner, P. L. Nimis, M. Tretiach

***Caloplaca rubelliana* (Ach.) Lojka (Teloschistaceae)**

+ **TOS:** Sassi Neri, Impruneta (Firenze) (UTM WGS84: 32T 682884.4838534), on ultramafic outcrops, 270 m, 21 April 2023, leg. *E. Bianchi, A. Guttová, L. Paoli*, det. *A. Guttová, Z. Fačkovcová* (SAV0020698). – Species new to Toscana.

Caloplaca rubelliana is a crustose lichen growing on steeply inclined surfaces of hard, basic siliceous rocks (especially basalt) (Nimis and Martellos 2025). In the study site, it was found on ultramafic rocks in open stands together with *Rhizocarpon viridiatrum* (Wulfen) Körb., *Spilonema paradoxum* Bornet, and *Squamaria cartilaginea* (With.) P. James f. *cartilaginea*.

E. Bianchi, Z. Fačkovcová

***Candelariella coralliza* (Nyl.) H.Magn. (Candelariaceae)**

+ **BAS:** Pignola (Potenza), on siliceous rocks (UTM WGS84: 33T 5689939.4490247), 1422 m, 20 June 2019, leg. *G. Potenza, L. Rosati*, det. *G. Potenza*; Monte Volturino, Marsicovetere (Potenza), on siliceous rocks (UTM WGS84: 33T 569335.4472736), 1600 m, 11 July 2019, leg. *G. Potenza, L. Rosati, S. Fascetti*, det. *G. Potenza* (HLUC No. 1100); San Fele (Potenza), on siliceous rocks (UTM WGS84: 33T 545538.4519077), 930 m, 29 November 2024, leg. *G. Potenza, L. Rosati*, det. *G. Potenza, L. Rosati*. – Species new to Basilicata.

Candelariella coralliza is a boreal-montane to arctic-alpine, circumpolar species typically found on siliceous rocks, more rarely on lignum. It is frequent in alpine to subalpine pastures, often occurring on isolated boulders used as bird perches; widespread throughout the Alps, it has likely been overlooked elsewhere by Italian authors or subsumed under *C. vitellina* (Hoffm.) Müll. Arg (Nimis and Martellos 2025).

G. Potenza, S. Fascetti, L. Rosati

***Catapyrenium daedalum* (Kremp.) Stein (Verrucariaceae)**

+ **BAS:** Monte S. Croce, San Fele (Potenza), on siliceous rocks (UTM WGS84: 33T 549507.4514369), 1383 m, 12 June 2024, leg. *G. Potenza, L. Rosati, S. Fascetti, A. Stinca*, det. *L. Di Nuzzo* (HLUC No. 1101). – Species new to Basilicata.

Catapyrenium daedalum a boreal-montane to arctic-alpine, circumpolar species found on plant debris, mosses and bare, humus-rich soil on calciferous ground near or above treeline is perhaps less common than *C. cinereum* (Pers.) Körb. in the mountains of southern Italy (Nimis and Martellos 2025).

G. Potenza, L. Rosati, L. Di Nuzzo

***Cladonia coccifera* (L.) Willd. (Cladoniaceae)**

+ **BAS:** Monte S. Croce, San Fele (Potenza), on siliceous rocks (UTM WGS84: 33T 549726.4514200), 1346 m, 1 October 2024, leg. *G. Potenza, L. Rosati, S. Fascetti*, det. *G. Gheza* (HLUC No. 1102). – Species new to Basilicata.

Cladonia coccifera is a cool-temperate to arctic-alpine, circumpolar lichen found on soil in open situations, such as in dry tundra-like habitats, more rarely on wood in subalpine open forests. In the western part of the upper Po Plain the species has several low-altitude occurrences within open dry habitats in the submediterranean belt (Gheza 2015, 2018, 2020).

G. Potenza, L. Rosati, G. Gheza

Lecanora albella (Pers.) Ach. (Lecanoraceae)

+ ABR: Prati di Tivo, Pietracamela (Teramo) (UTM WGS84: 33T 382030.4706814), on bark of *Fagus sylvatica* L., 1550 m, 18 July 2013, S. Ravera; ibidem, 9 July 2024, R. Benesperi, M. Legnaro Diamanti (PAL); Venacquaro, Intermesoli (Teramo) (UTM WGS84: 33T 377956.4707443), on bark of *Fagus sylvatica* L., 1200 m, 29 August 2013, S. Ravera; ibidem, 10 July 2024, R. Benesperi, M. Legnaro Diamanti; Incodara, Fano Adriano (Teramo) (UTM WGS84: 33T 373850.4707434), on bark of *Fagus sylvatica* L., 1500 m, 13 September 2013, S. Ravera. – Species new to Abruzzo.

This crustose species is widely distributed across temperate to boreal regions of the Holarctic, including Africa, Asia, Europe, and North America. It is predominantly found colonizing smooth bark substrates, with a marked affinity for *Fagus sylvatica* L. In Italy, *L. albella* was more common in the past. However, its apparent decline may be attributable to misidentification, as it might have been previously confused with the morphologically similar species *Glaucomaria subcarpinea* (Szatala) S.Y.Kondr., Lökö & Farkas.

S. Ravera, R. Benesperi, M. Legnaro Diamanti

Lepra corallina (L.) Hafellner (Ochrolechiaceae)

+ VEN: S Alps, Carnic Alps, saddle between Col Marende and Mt. Tiarfin, S above Casera Razzo, ca. 9 km W of Sauris di Sopra (Belluno) (UTM WGS84: 33T 315960.5149154), on NW-exposed low outcrops, schists of the Werfen formation, 2000 m, 27 July 1993, J. Hafellner (GZU – JH84436) (Label text in German). – Species new to Veneto.

+ PIE: W Alps, Alpi Graie, mountains NE of Bardonécchia, W slopes of Punta Sommeiller, S below of Colle de Sommeiller (Torino) (UTM WGS84: 32T 329937.4999265), 2850 m, on boulders of siliceous schist in alpine vegetation, 28 July 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87415); W Alps, Alpi Cozie, ridge S of Valle di Susa, SW above Colle dell'Assietta (Torino) (UTM WGS84: 32T 338830.4992240), outcrops of N-exposed siliceous schists, 2550 m, 27 July 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH75569); W Alps, Alpi Cozie, Colle di Sampeyre, just W of the Pass (Cuneo) (UTM WGS84: 32T 350218.4935115), on siliceous rocks, ca. 2300 m, 26 July 2000, P.L. Nimis, M. Tretiach, J. Hafellner (TSB 32831); W Alps, Alpi Marittime, Rocca dell'Abisso W of Colle di Tenda, E below summit, steep slopes towards uppermost Vallone dell'Abisso (Cuneo) (UTM WGS84: 32T 380673.4888905), cliffs, outcrops and dispersed boulders of gneiss, on steep E-exposed faces, 2630 m, 22 July 2000, leg. A. Hafellner, J. Hafellner, M. Tretiach, det. J. Hafellner (GZU – JH87379). – Species confirmed for Piemonte.

Fresh thalli are greyish white but depending on the concentration of thamnolic acid (Hanko 1983), the thalli turn more or less to reddish with age. *L. corallina* grows on lime-free acidic rocks, mostly on steep rock faces. This species, with a Holarctic, boreal to temperate, montane to alpine distribution, is fairly common in areas with high precipitation. It is widespread in the Alps (Nimis et al. 2018) but we notice a thinning of records in the more southerly parts. Its distribution in Italy is relatively well documented (Nimis 1993, 2024). However, the so far published records for Piemonte date back to the 19th century (Baglietto and Carestia 1867, as *Pertusaria ocellata* var. *corallina*; Baglietto & Carestia, 1880). More recent reports from that region (Erichsen 1936; Isocrono et al. 2004) are repeats of these historical records.

J. Hafellner, P. L. Nimis, M. Tretiach

***Monerolechia badia* (Fr.) Kalb (Caliciaceae)**

+ EMR: Riserva Naturale Monte Prinzera (Parma), on ophiolitic rocks (UTM WGS84: 32T 585847.4943456), 635 m, 17 August 2015, leg. W. & G. v. Brackel, det. W. v. Brackel (M). – Species new to Emilia-Romagna.

This species is growing on base-rich siliceous rocks. It is a rather rare species in Italy, mainly found in the humid mediterranean zone but also in the subalpine belt. It beings growth on other saxicolous lichens, later becoming independent. In our specimen the thallus was partly destroyed. This species has a strange worldwide distribution with many records in Europe (mainly in the Mediterranean) and Australia, one in South America but nowhere else (according to GBIF 2025b).

W. v. Brackel

***Mycobilimbia carneoalbida* (Müll.Arg.) S.Ekman & Printzen (Ramalinaceae)**

+ TOS: Belagaio (Grosseto), on *Fagus sylvatica* L. (UTM WGS84: 32T 679862.4772718), 310 m, 9 January 2024, leg. R. Benesperi, det. L. Guazzini (FI). – Species new to Toscana.

Mycobilimbia carneoalbida is a crustose lichen that can be found on a variety of substrata such as bark, moss and plant debris, from the montane belt till above the treeline. The thallus is pale greenish and coarsely granular with frequent pale yellow-orange, biatorine apothecia. The Italian material needs revision as it was frequently confused with other taxa (Nimis 2025).

L. Guazzini, L. Di Nuzzo, R. Benesperi

***Pertusaria flavicans* Lamy (Pertusariaceae)**

+ VDA: W Alps, Alpi Pennine, Colle del Gran San Bernardo, just SW below the pass (Aosta) (UTM WGS84: 32T 357153.5081436), vertical faces of siliceous rocks in alpine grassland on steep S-facing slope, 2500 m, 1 August 2001, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH88192). – Species new to Val d’Aosta.

+ **PIE:** W Alps, Alpi Cozie, ridge S of Valle di Susa, N slopes of Mt. Genevris, ENE of the top, (Torino) (UTM WGS84: 32T 335133.4988877), rocky slope over slightly calcareous micaschist, on low outcrops near treeline, 2500 m, 27 July 2001, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87232); W Alps, Alpi Cozie, ridge S of Valle di Susa, SW above Colle dell'Assieta (Torino), (UTM WGS84: 32T 338830.4992240), N-facing outcrops of slightly calcareous schists on the ridge, 2550 m, 27 July 2001, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87802); W Alps, Alpi Cozie, ridge NW above Crissolo, N above Pian di Melzè (Cuneo), (UTM WGS84: 32T 350912. 4951810), outcrops of calcareous schists on steep S-facing slope, 1880 m, 25 July 2001, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87793); W Alps, Alpi Cozie, W ridge of Mt. Nebin about 1 km E of Colle di Sampeyre (Cuneo) (UTM WGS84: 32T 352157.4934030), outcrops of ophiolitic schists on N-facing slope, 2380 m, 26 July 2000, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87747); W Alps, Alpi Liguri, just NW above Carnino (Cuneo) (UTM WGS84: 32T 398344.4889195), 1400 m, outcrops of slightly calcareous blue-green schists close to the creek, on sunny inclined faces, 19 July 2000, *J. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87544); W Alps, Alpi Liguri, uppermost N ridge of Mt. Saccarello, SW above Monesi, on the E side of the crest NW of Statua del Redentore (Cuneo) (UTM WGS84: 32T 396995.4879618), outcrops of siliceous sandstone and calcareous schists in alpine meadows, on low outcrops of clay slate with low content of calcium, 2150 m, 18 July 2000, *J. Hafellner, A. Hafellner, P.L. Nimis, M. Tretiach* (GZU – JH87442). – Species new to Piemonte.

+ **SIC:** Pelagie Islands, Island of Linosa, Mt. Nero (Agrigento) (UTM WGS84: 33S 306398. 3971162), on base-rich effusive rock, c. 80 m, 1992, *M. Tretiach* (TSB 17035). – Species new to Sicilia.

Pertusaria flavicans is a mostly sterile species. The intensity of the yellowish tinge of the thallus is rather variable (Erichsen 1936) and depends on the concentration of chlorinated xanthones (see Hanko 1983). Of the two chemical strains known from Europe, only that with the more complex set of secondary compounds occurs in the central and southern parts of the continent. This species grows on steep rock faces of schistose rocks, either base-rich or with low calcium content, and has a Holarctic distribution with most records from Europe. In Italy it is widespread but not common (Nimis 1993, 2025), however, the sterile thalli may have been repeatedly neglected or overlooked.

J. Hafellner, P. L. Nimis, M. Tretiach

Pycnora praestabilis (Nyl.) Hafellner (Pycnoraceae)

+ **VEN:** Southern Alps, Venetian Pre-Alps, Prealpi Bellunesi, Nevegal SE of Belluno, slopes exposed to NE, NE of the middle station of the chair-lift on Col Favergheera (Belluno), (UTM WGS84: 33T 290621.5107335), clearing in mixed coniferous forest, on wood of rotting stump, 1300 m, 31 August 2002, *J. Hafellner* (GZU – JH61320). – Species confirmed for Veneto.

+ **LOM:** Central Alps, Southern Rhaetian Alps, Adamello-group, surroundings of Lago d'Aviolo, c. 5.5 km S above Vezza d'Oglio, by the trail S of Rifugio Aviolo, E above the lake (Brescia) (UTM WGS84: 32T 609203 5116625), large granitic boulders among scattered conifers, on wood of rotting snag (*Larix decidua* Mill.), 1940 m, 25 July 2006, J. Hafellner, J. Nascimbene, L. Muggia, M. Tretiach (GZU – JH88161). Note: fertile specimen! – Species new to Lombardia.

+ **PIE:** Western Alps, Ligurian Alps, by the road from Monesi to Úpega, small valley S above the village Úpega (Cuneo) (UTM WGS84: 32T 397753 4885470), open coniferous forest with dominant *Larix decidua* Mill., on wood of rotting log, 1600 m, 18 July 2000, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87470). – Species new to Piemonte.

+ **LIG:** Western Alps, Ligurian Alps, just E below the village Úpega, on southern (right) bank of the stream Negrone = Corvo torrent, (Imperia), (UTM WGS84: 32T 398883 4886687), outcrops of calcareous schist and adjacent woodland, on rotting wood of a bridge, elev. 1260 m, 19 July 2000, J. Hafellner, P.L. Nimis, M. Tretiach (GZU – JH87535). – Species new to Liguria.

All specimens except that from Lombardia are sterile but exhibit the diagnostic conspicuous pycnidia and the typical secondary chemistry (alectorialic acid). In fresh specimens the areolate thallus appears whitish to creamy-greyish, however in the herbarium it gradually turns rusty-reddish. The species is most frequently recorded in the montane belt, where it preferably grows on slowly rotting snags, stumps and logs as well as on comparable man-made substrates (wooden fences, shingles), rarely on acidic bark of conifers. *Pycnora praestabilis* is widespread in the Holarctic region, and has been recorded throughout the Alps, but apparently becomes rarer towards the west (Nimis et al. 2018). However, the species is likely to be under-collected due to frequent lack of apothecia. The confirmed distribution in Italy is restricted to the north, where it was recorded more than once only in Trentino-Alto Adige. In Veneto it was only known from a historical record (Jatta 1900, as *Lecidea xanthococca*).

J. Hafellner, P. L. Nimis, M. Tretiach

***Spilonema paradoxum* Bornet (Coccociapiaceae)**

+ **TOS:** Sassi Neri, Impruneta (Firenze) (UTM WGS84: 32T 682884.4838534), on ultramafic outcrops, 270 m, 21 April 2023, leg. E. Bianchi, A. Guttová, det. A. Guttová, L. Paoli (SAV0020699); Locality “Poggio Abbù”, near Casciano di Murlo (Siena) (UTM WGS84: 32T 689487.4778935), on ultramafic outcrops, 380 m, 5 April 2023, leg. A. Guttová, Z. Fačkovcová, det. A. Guttová, L. Paoli (SAV0020700). – Species confirmed for Toscana.

Spilonema paradoxum is probably overlooked (but not common in Italy) and can be found on basic siliceous rocks (Nimis and Martellos 2025). The publication of a previous record of *S. paradoxum* from Toscana dates back to more than 100 years ago (Jatta 1909–11). In both our study sites, it grows together with *Solenopsora liparina* (Nyl.) Zahlbr.

A. Guttová, L. Paoli

***Thelopsis flaveola* Arnold (Stictidaceae)**

+ CAL: on NW-facing slope of Mt. Timpone di Viggianello, Morano Calabro (Cosenza) (UTM WGS84: 33S 595526.4417533), in beech forest, on bark of *Fagus sylvatica* L., 1630 m, 7 May 2012, leg. J. Malíček, I. Frolov, J. Vondrák, det. J. Malíček (PRA). – Species new to Calabria.

This inconspicuous, rare, often overlooked microlichen is known from Europe and North America (GBIF.org 2025c) where is mostly restricted to old-growth forest stands and, in the subalpine belt, on bases of old *Rhododendron* shrubs. In Italy it is known for a few locations (Nimis and Martellos 2025). The species is included in the Italian Red List of epiphytic lichens as “Critically Endangered” (Nascimbene et al. 2013).

J. Malíček, S. Ravera

***Xylopsora caradocensis* (Nyl.) Bendiksby & Timdal (Umbilicariaceae)**

+ EMR: Montecreto, Parco dei Castagni (Modena), on dead wood of *Castanea sativa* (UTM WGS84: 32T 636845.4900773), 845 m, 16 August 2015, leg. W. v. Brackel, det. W. v. Brackel (M). – Species new to Emilia-Romagna.

This species, that changed its name several times in recent years, was known for long time as *Hypocenomyce caradocensis* (Leight. ex Nyl.) P.James & Gotth.Schneid. It lives on the bark of conifers and of deciduous trees with base-poor bark as well as on wood in forests of the montane and subalpine belt. It has a thallus of squamose to bullate and deformed grey green to grey or dark brown squamules; the black, lecideine apothecia are rare. According to GBIF (2025d as *H. caradocensis*) it is widely distributed over Europe and has a few finds also in North America. The species is included in the Italian Red List of epiphytic lichens as “Endangered” (Nascimbene et al. 2013, as *Hypocenomyce c.*).

W. v. Brackel

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References

- Abdelahad N, D'Archino R, D'Amato EP (2004) Flora illustrata delle alghe marine delle coste laziali (Italia Centrale). III. Chlorophyta. IV. Corallinales (Rhodophyta). CD ROM. Università di Roma Sapienza, Roma.
- Andriušaitytė D, Jukonienė I (2010) Mosses with specialized asexual propagules in arable fields of Lithuania. *Acta Biologica Universitatis Daugavpiliensis*, Suppl. 2: 121–132.
- Aleffi M, Cogoni A, Poponessi S (2023) An updated checklist of the bryophytes of Italy, including the republic of San Marino and Vatican City State. *Plant Biosystems* 157: 1259–1307. <https://doi.org/10.1080/11263504.2023.2284136>
- Anzi M (1860) Catalogus lichenum quos in Provincia Sondriensi et circa Novum-Comum colligit et in ordinem systematicum digessit presbyter Martinus Anzi. Tipografia C. Franchi, Como, 126 pp.
- Anzi M (1866) Lichenes rariores Langobardi exsiccati. Fasc. XII. Nr. 453–494. Como.
- Anzi M (1868) Analecta lichenum rariorum vel novorum Italiae superioris. *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale di Milano* 11: 156–181.
- Arnold F (1874) Lichenologische Ausflüge in Tirol. XIII. Der Brenner. *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien* 24: 231–284.
- Arnold F (1896) Lichenologische Ausflüge in Tirol. XXVI. Pians. XXVII. Galtür. XXVIII. Wolkenstein. XXIX. Plansee. Nachträge. *Verhandlungen der Kaiserlich-Königlichen Zoolisch-Botanischen Gesellschaft in Wien* 46: 101–143.
- Baglietto F, Carestia A (1867) Catalogo dei licheni della Valsesia II. *Commentario della Società Crittogramologica Italiana* 2: 321–434.
- Baglietto F, Carestia A (1880) Anacrisi dei Licheni della Valsesia. *Atti della Società Crittogramologica Italiana* 2 (2–3): 143–356.
- Benesperi R, Brunialti G, Fappiano A, Frati L, Giordani P, Loppi S, Paoli L, Ravera S, Buzio P, Benco C, Martellos S, Tretiach M (2007) Contributo alla conoscenza della flora lichenica dell'Abetone, Appennino Tosco-Emiliano. *Informatore Botanico Italiano* 39: 43–51.
- Bizot M, Fraux A (1962) Florule bryologique des Monts Albains (Rome). Travail posthume de A. Lachmann. *Revue Bryologique et Lichénologique* 31: 78–89.
- Boom, P van den, Aptroot A (1990) Contribution to the lichen flora of Italy. *Cryptogamie, Bryologie et Lichénologie* 11: 391–399.
- Boonmee S, Wanasinghe DN, Calabon MS, Huanraluek N, Chandrasiri SKU, Jones GEB, Rossi W, Leonardi M, Singh SK, Rana S, Singh PN, Maurya DK, Lagashetti AC, Choudhary D, Dai YC, Zhao CL, Mu YH, Yuan HS, He SH, Phookamsak R, Jiang HB, Martín MP, Dueñas M, Telleria MT, Kałucka IL, Jagodziński AM, Liimatainen K, Pereira DS, Phillips AJL, Suwannarach N, Kumla J, Khuna S, Lumyong S, Potter TB, Shivas RG, Sparks AH, Vaghefi N, Abdel-Wahab MA, Abdel-Aziz FA, Li GJ, Lin WF, Singh U, Bhatt RP, Lee HB, Nguyen TTT, Kirk PM, Dutta AK, Acharya K, Sarma VV, Niranjan M, Rajeshkumar KC, Ashtekar N, Lad S, Wijayawardene NN, Bhat DJ, Xu RJ, Wijesinghe SN, Shen HW, Luo ZL, Zhang JY, Sysouphanthong P, Thongklang N, Bao DF, Aluthmuhandiram JVS, Abdollahzadeh J, Javadi A, Dovana F, Usman M, Khalid AN, Dissanayake AJ, Telagathoti A, Probst M, Peintner U, Garrido-Benavent I, Bóna L, Merényi Z, Boros L, Zoltán B, Stielow JB, Jiang N, Tian CM, Shams E, Dehghanizadeh F, Pordel A, Javan-Nikkhah M, Denchev TT, Denchev

- CM, Kemler M, Begerow D, Deng CY, Harrower E, Bozorov T, Kholmuradova T, Gafforov Y, Abdurazakov A, Xu JC, Mortimer PE, Ren GC, Jeewon R, Maharachchikumbura SSN, Phukhamsakda C, Mapook A, Hyde KD (2021) Fungal diversity notes 1387–1511: Taxonomic and phylogenetic contributions on genera and species of fungal taxa. *Fungal Diversity* 111: 1–335. <https://doi.org/10.1007/s13225-021-00489-3>
- Brackel W von (2014) Kommentierter Katalog der flechtenbewohnenden Pilze Bayerns. *Bibliotheca Lichenologica* 109: 1–476.
- Brackel W von (2015) Lichenicolous fungi from Central Italy with notes on some remarkable hepaticolous, algicolous and lichenized fungi. *Herzogia* 28: 212–281. <https://doi.org/10.13158/heia.28.1.2015.212>
- Brackel W von (2016) Preliminary checklist of the lichenicolous fungi of Italy. *Notiziario della Società Lichenologica Italiana* 29: 95–145.
- Brackel W von, Puntillo D (2016) New records of lichenicolous fungi from Calabria (southern Italy), including a first checklist. *Herzogia* 29: 277–306. <https://doi.org/10.13158/heia.29.2.2016.277>
- Brunialti G, Giordani P, Tretiach M (1999) Primo contributo alla conoscenza dei licheni dei Parchi regionali dell'Aveto e del Monte di Portofino (Liguria). *Notiziario della Società Lichenologica Italiana* 12: 11–21.
- Bunyard BA, Wang Z, Malloch D, Clayden S, Voitk A (2008) North American records for *Ascocoryne turficola* (Ascomycota: Helotiales). *Fungi* 1: 23–31.
- Cengia-Sambo M (1931) Ecologia dei Licheni. I licheni dei passi alpini e loro parallelismo con quelli delle tundre. *Atti della Società Italiana di Scienze Naturali* 70: 45–65.
- Cinelli F, Drago D, Furnari G, Giaccone G, Scammaca B, Solazzi A, Sortino MC (1976) Flora marina dell'Isola di Linosa (Arcipelago delle Pelagie). *Memorie di Biologia Marina e di Oceanografia* 6: 141–172.
- Consiglio G, Setti L (2018) I generi Hohenbuehelia e Resupinatus in Europa. A.M.B. Fondazione Centro Studi Micologici, Brescia.
- Courtecuisse R, Duhem B (1995) *Mushrooms and Toadstools of Britain and Europe*. Harper Collins Publishers, Ramsbury, Wiltshire.
- Diederich P, Ertz D, Etayo J, Zhurbenko MP (2024) *Sclerotococcum*. In: Diederich P, Ertz D, Braun U, Flora of lichenicolous fungi 2. National Museum of Natural History, Luxembourg, 360–390.
- Døssing L (1992) *Sericomyces* Heinem. In: Hansen L, Knudsen H (Eds.) *Nordic Macromycetes*, Vol. 2. Nordsvamp, Copenhagen, 227–228.
- Edwards PE, Bird E, Cotgreave G, Cossind A, Crompton K, Fowler K, Herdson D, Hudson J (1975) Marine phytobenthos of the Castellabate (Cilento) Natural Park, Salerno, Italy. *Phytocoenologia* 1: 403–426. <https://doi.org/10.1127/phyto/1/1975/403>
- Erichsen CFE (1935–1936) Pertusariaceae. In: Rabenhorst L (Ed.), *Rabenhorst's Kryptogamen Flora von Deutschland, Österreich und der Schweiz* 9(5). Leipzig: 321–728.
- Filippova NV, Bulyonkova TM (2013) Notes on the ecology of *Ascocoryne turficola* (Ascomycota: Helotiales) in West Siberia. *Environmental Dynamics and Global Climate Change* 4, No. 2 (8): 1–6. <https://doi.org/10.17816/edgcc421-6>
- Filippova N, Zvyagina E, Bulyonkova T (2013) *Ascocoryne turficola* (Boud.) Korf records from West Siberia. *Fungi* 6: 26–30.

- Fiutem H (1995) Un Ascomicete raro. Bollettino del Gruppo micologico G. Bresadola 38: 55–57.
- Furnari G, Cormaci M, Serio D (1999) Catalogue of the benthic marine macroalgae of the Italian coast of the Adriatic Sea. Boccone 12: 5–214.
- Gallardo T, Gómez Garreta A, Ribera MA, Cormaci M, Furnari G, Giaccone G, Boudouresque C-F (1993) Check-list of Mediterranean Seaweeds, II. Chlorophyceae Wille s.l. Botanica Marina 36: 399–421. <https://doi.org/10.1515/botm.1993.36.5.399>
- GBIF.org (2025a) *Cladophoropsis membranacea* (Bang ex C.Agardh) Børgesen in GBIF Secretariat (2023) GBIF Backbone Taxonomy. [accessed via <https://www.gbif.org/species/2644890> 6 January 2025]. <https://doi.org/10.15468/39omei>
- GBIF.org (2025b) *Monerolechia badia* (Fr.) Kalb. in GBIF Secretariat (2023) GBIF Backbone Taxonomy. Checklist dataset. [accessed via <https://www.gbif.org/species/2609527> 24 January 2025]. <https://doi.org/10.15468/39omei>
- GBIF.org (2025c) *Thelopsis flaveola* Arnold in GBIF Secretariat (2023) GBIF Backbone Taxonomy. Checklist dataset. [accessed via <https://www.gbif.org/species/3414510> 17 January 2025]. <https://doi.org/10.15468/39omei>
- GBIF.org (2025d) *Hypocenomyce caradocensis* (Leight. ex Nyl.) P. James & Gotth. Schneid. in GBIF Secretariat (2023) GBIF Backbone Taxonomy. Checklist dataset [accessed via <https://www.gbif.org/species/2600786> 25 January 2025]. <https://doi.org/10.15468/39omei>
- Gheza G (2015) Terricolous lichens of the western Padanian Plain: new records of phytogeographical interest. Acta Botanica Gallica – Botany Letters 162: 339–348. <https://doi.org/10.1080/12538078.2015.1108867>
- Gheza G (2018) Addenda to the lichen flora of the Ticino river valley (western Po Plain, Italy). Natural History Sciences 5: 33–40. <https://doi.org/10.4081/nhs.2018.381>
- Gheza G (2020) I licheni terricoli degli ambienti aperti aridi della pianura piemontese. Rivista Piemontese di Storia Naturale 41: 147–155.
- Giaccone G (1969) Raccolte di fitobenthos sulla banchina continentale italiana. Giornale Botanico Italiano 103: 485–514. <https://doi.org/10.1080/11263506909430507>
- Gyosheva MM, Stoykov DY, Natcheva RK (2015) *Ascocoryne turficola* (Ascomycota, Helotiales): first records from South Europe. Phytologia Balcanica 21: 3–6.
- Hafellner J (1979) *Karschia* - Revision einer Sammelgattung an der Grenze von lichenisierten und nicht lichenisierten Ascomyceten. Beihefte zur Nova Hedwigia 62: 1–248.
- Hafellner J, Sancho LG (1990) Über einige lichenicole Pilze und Flechten aus den Gebirgen Zentralspaniens und den Ostalpen. Herzogia 8: 363–382. <https://doi.org/10.1127/herzogia/8/1990/363>
- Hanko B (1983) Die Chemotypen der Flechtengattung *Pertusaria* in Europa. Bibliotheca Lichenologica 19: 1–344.
- Hawksworth DL (1975) A revision of lichenicolous fungi accepted by Keissler in *Coniothecium*. Transactions of the British Mycological Society 65: 219–238. [https://doi.org/10.1016/S0007-1536\(75\)80005-2](https://doi.org/10.1016/S0007-1536(75)80005-2)
- Hawksworth DL (1979) The lichenicolous *Hypomycetes*. Bulletin of the British Museum (Natural History), Botany series 6: 183–300.
- Jäggli M (1933) *Tortula pagorum* (Milde) De Not. ed altri muschi arboricoli a Roma. Bollettino della Società ticinese di scienze naturali 28: 37–46.

- Jatta A (1892) Licheni raccolti nell'isola d'Ischia fino all'Agosto del 1891. *Bollettino della Società Botanica Italiana* 1892: 206–211.
- Jatta A (1900) *Sylloge lichenum italicorum*. Tip. Vecchi, Trani, 623 pp.
- Jatta A (1909–1911) *Flora Italica Cryptogama*, pars III – Lichenes. Tip. Cappelli, Rocca di San Casciano, 958 pp.
- Jukonienė I, Andriušaitytė D, Rašomavičius V (2012) Bryophyte diversity and phenological aspects in different habitats of arable land. *Journal of Foods, Agriculture and Environments* 10: 718–725.
- Käärik A (1992) *Hohenbuehelia* Schulz. In: Hansen L, Knudsen H (Eds.) *Nordic Macromycetes*, Vol. 2. Nordsvamp, Copenhagen, 127–128.
- Kernstock E (1890) Lichenologische Beiträge. I, II. *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien* 40: 317–350.
- Kernstock E (1896) Lichenologische Beiträge. VII, [Nachträge] zu II, V. *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien* 46: 279–310.
- Isocrono D, Matteucci E, Faletti C, Piervittori, R (2004) Contributo alle conoscenze licheniche nelle Alpi Pennine (Valsesia, Piemonte–Italia). *Bollettino del Museo Regionale di Scienze Naturali di Torino* 21: 261–474.
- Lettau G (1958) Flechten aus Mitteleuropa XIV (Schluß). *Feddes Repertorium Specierum Novarum Regni Vegetabilis* 61: 105–171. <https://doi.org/10.1002/fedr.19580610202>
- Moser M (1986) Guida alla determinazione dei funghi, Vol. 1 (Polyporales, Boletales, Agaricales, Russulales), 2a edizione italiana, Arti Grafiche Saturnia s.a.s., Trento.
- Nascimbene J, Nimis PL, Ravera S (2013) Evaluating the conservation status of epiphytic lichens of Italy: a red list. *Plant Biosystems* 147: 898–904. <https://doi.org/10.1080/11263504.2012.748101>
- Nascimbene J, Gheza G, Hafellner J, Mayrhofer H, Muggia L, Obermayer W, Thor G, Nimis PL (2021) Refining the picture: new records to the lichen biota of Italy. *Mycokeys* 82: 97–137. <https://doi.org/10.3897/mycokeys.82.69027>
- Nimis PL (1993) The lichens of Italy: an annotated catalogue. Monografie XII. Museo Regionale di Scienze Naturali di Torino, Torino, 897 pp.
- Nimis PL (2016) The lichens of Italy – A second annotated catalogue. EUT Edizioni Università di Trieste, Trieste, 740 pp.
- Nimis PL (2025) ITALIC – The Information System on Italian Lichens. Version 7.0. University of Trieste, Dept. of Biology. <https://dryades.units.it/italic> [accessed 10.1.2025]
- Nimis PL, Martellos S (2025) ITALIC - The Information System on Italian Lichens. Version 8.0. University of Trieste, Dept. of Biology. <https://dryades.units.it/italic> [accessed 17.1.2025]
- Nimis PL, Poelt J (1987) The lichens and lichenicolous fungi of Sardinia (Italy). An annotated list. *Studia Geobotanica* 7, Suppl. 1: 1–269.
- Nimis PL, Hafellner J, Roux C, Clerc P, Mayrhofer H, Martellos S, Bilovitz PO (2018) The lichens of the Alps – an annotated checklist. *MycoKeys* 31: 1–634. <https://doi.org/10.3897/mycokeys.31.23568>
- Onofri S, Bernicchia A, Filipello Marchisio V, Padovan F, Perini C, Ripa C, Savino E, Venturella G, Vizzini A, Zotti M, Zucconi L (2013) Checklist of the macrobasidiomycetes of Italy. <http://dryades.units.it/macrobasidiomiceti/index.php> [accessed 24.05.2025]

- Porley R (2008) Arable bryophytes. Wild Guides Ltd., Princeton University Press.
- Puntillo D (1993) Contributi alle conoscenze floristiche sui licheni d'Italia. 6. Florula lichenica della Valle del Fiume Argentino (Calabria, Italia). *Webbia* 47: 163–186. <https://doi.org/10.1080/00837792.1993.10670537>
- Puntillo D (1996) I licheni di Calabria. Monografie XXII. Museo Regionale di Scienze Naturali di Torino, Torino, 229 pp.
- Ravera S, Vizzini A, Puglisi M, Totti C, Angiolini C, Azzella MM, Bacilliere G, Boccardo F, Bonini I, von Brackel W, Brusa G, Cavallaro V, Cancellieri L, Cannucci S, Cantonati M, De Giuseppe AB, Di Nuzzo L, Dovana F, Fanfarillo E, Fiaschi T, Filibeck G, Francesconi L, Gheza G, Giordani P, Guttová A, Hafellner J, Isocrono D, Malíček J, Mayrhofer H, Miraglia G, Nascimbene J, Nimis PL, Ongaro S, Pandeli G, Paoli L, Passalacqua NG, Pinault P, Pistocchi C, Potenza G, Prosser F, Puntillo D, Puntillo M, Rosati L, Scoli G, Tiburtini M, Tretiach M, Zedda L (2024) Notulae to the Italian flora of algae, bryophytes, fungi and lichens: 17. *Italian Botanist* 17: 23–41. <https://doi.org/10.3897/italianbotanist.17.123283>
- Rozhina VI, Ignatov MS, Ignatova EA, Napreenko MG (2010) *Dicranella staphylina* (Dicranaceae, Bryophyta) in Russia. *Arctoa* 19: 135–138. <https://doi.org/10.15298/arctoa.19.11>
- Sbarbaro C (1932) Contributo alla flora lichenologica Ligure (continuazione e fine). *Archivio Botanico* 8: 207–255.
- Scortegagna S (2016) Briofite nuove o interessanti per il Veneto. *Natura Vicentina* 19: 37–84.
- Scortegagna S (2024) Isole di biodiversità nella pianura: note sulle briofite dei cimiteri del Veneto (Italia nordorientale). *Natura Vicentina* 24: 83–103.
- Stasińska M, Sotek Z (2004) *Ascocoryne turficola* (Fungi, Ascomycetes), a species new to Poland. *Acta Societatis Botanicorum Poloniae* 73: 61–64. <https://doi.org/10.5586/asbp.2004.010>
- Tretiach M, Carvalho P (1995) Lichenological studies in north-eastern Italy. VI. Species new to Friuli or Venezia Giulia. *Gortania* 16: 89–97.
- Tretiach M, Hafellner J (2000) Lichens and lichenicolous fungi of M. Fleons (Carnic Alps, Italy). I. Epilithic and epigaeic species. *Herzogia* 14: 99–111. <https://doi.org/10.1127/herzogia/14/2000/99>
- Tretiach M, Nimis PL, Hafellner J (2008) Miscellaneous records of lichens and lichenicolous fungi from the Apuan Alps and the Tuscan-Emilian Apennine (central Italy). *Herzogia* 21: 93–103.
- Ursavaş S, Keçeli T, Uyar G, Ören M (2020) *Dicranella staphylina* (Dicranaceae), a new moss record from Turkey and South West Asia. *Plant Biosystems* 155: 483–386. <https://doi.org/10.1080/11263504.2020.1762778>
- Van Vooren N (2012) Le clou de la session mycologique fédérale 2011: *Ascocoryne turficola* (Helotiales). *Bulletin mycologique et botanique Dauphiné-Savoie* 206: 39–46.
- Vašutová M, Dvořák D, Beran M (2013) Rare macromycetes from raised bogs in the Hrubý Jeseník Mts. (Czech Republic). *Czech Mycology* 65: 45–67. <https://doi.org/10.33585/cmy.65104>
- Watling R, King R, Riddiford N (2001) New and interesting records of fungi from Shetland. *Botanical Journal of Scotland* 53: 57–64. <https://doi.org/10.1080/03746600108684955>
- Whitehouse HKL (1969) *Dicranella staphylina*, a new European species. *Transactions of the British Bryological Society* 5: 757–765. <https://doi.org/10.1179/006813869804146754>